

District of Squamish

## Transportation Options for the Squamish-Metro Vancouver Corridor

Final Draft

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Date:

October 8, 2009



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October 8, 2009

Project Number: 0783-102-00-01

Mr. Ralph Hughes  
Director, Finance Department  
District of Squamish  
37955 Second Avenue  
P.O. Box 310  
Squamish, B.C. V8B 0A3

Dear Mr. Hughes:

**Re: Transportation Options for the Squamish-Metro Vancouver Corridor – Final Draft**

The attached document is the Transportation Options for the Squamish-Metro Vancouver Corridor draft report for the District of Squamish's review and consideration. This report is the culmination of several months of gathering information and completes the work that was agreed upon in our letter proposal dated January 7, 2009. Research was conducted to determine the current and future market demand for a new enhanced/supplementary commuter system between Squamish and Metro Vancouver and to identify the currently available commuter options within Squamish and their relative advantages and disadvantages. The responses from the 2008 and 2009 public surveys regarding this issue conducted within the District of Squamish were also used in the planning and evaluation of the supplementary/enhancement transportation options for the Corridor.

At this time, we have a sufficient budget to make the necessary revisions to incorporate your comments into this draft report. We welcome any feedback you may be able to provide us.

We would also be pleased to represent the District of Squamish in future discussions with BC Transit and TransLink to help move the implementation of a new Squamish-Metro Vancouver express commuter service forward. We can also provide assistance on resolving issues of the funding of the service, fare integration, detailed assessments of the service stops, and route design. We would be able to provide these services at a cost-effective budget that would be determined through further discussion with the District.

It has been a pleasure for the AECOM staff in working with you in preparing this report.

Sincerely,

**AECOM Canada Ltd.**

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# Revision Log

Revision #	Revised By	Date	Issue / Revision Description
1	Bill Lambert and Iona To	September 29, 2009	Initial Draft
2	Bill Lambert and Iona To	October 2, 2009	Refinements and expansion
3	Bill Lambert and Iona To	October 8, 2009	Final Draft, Refinements and expansion

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# Signature Page

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Report Reviewed By:

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Bill Lambert, Manager, Transit Planning Services,  
Transportation, Western Canada

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# 1.0 Introduction

The proximity of Squamish to the Vancouver region, together with the affordability of housing and the attractiveness of the area as a residential location, has encouraged a number of people working within Metro Vancouver to live within the District of Squamish (according to the 2006 Census 875 people working in Metro Vancouver year-round live in Squamish). Likewise, the growing outdoor recreational opportunities (e.g., hiking, camping, and rock climbing) and some employment opportunities (within the tourism and high-tech sectors) within the District of Squamish have been attracting numerous residents of Vancouver to Squamish each week. Although there are transportation services that connect these two areas, they are insufficient to meet the current and future demand. The schedules are not flexible enough and the cost is prohibitive. As a result, most commuters and visitors rely on personal vehicles to get to and from Squamish and Metro Vancouver.

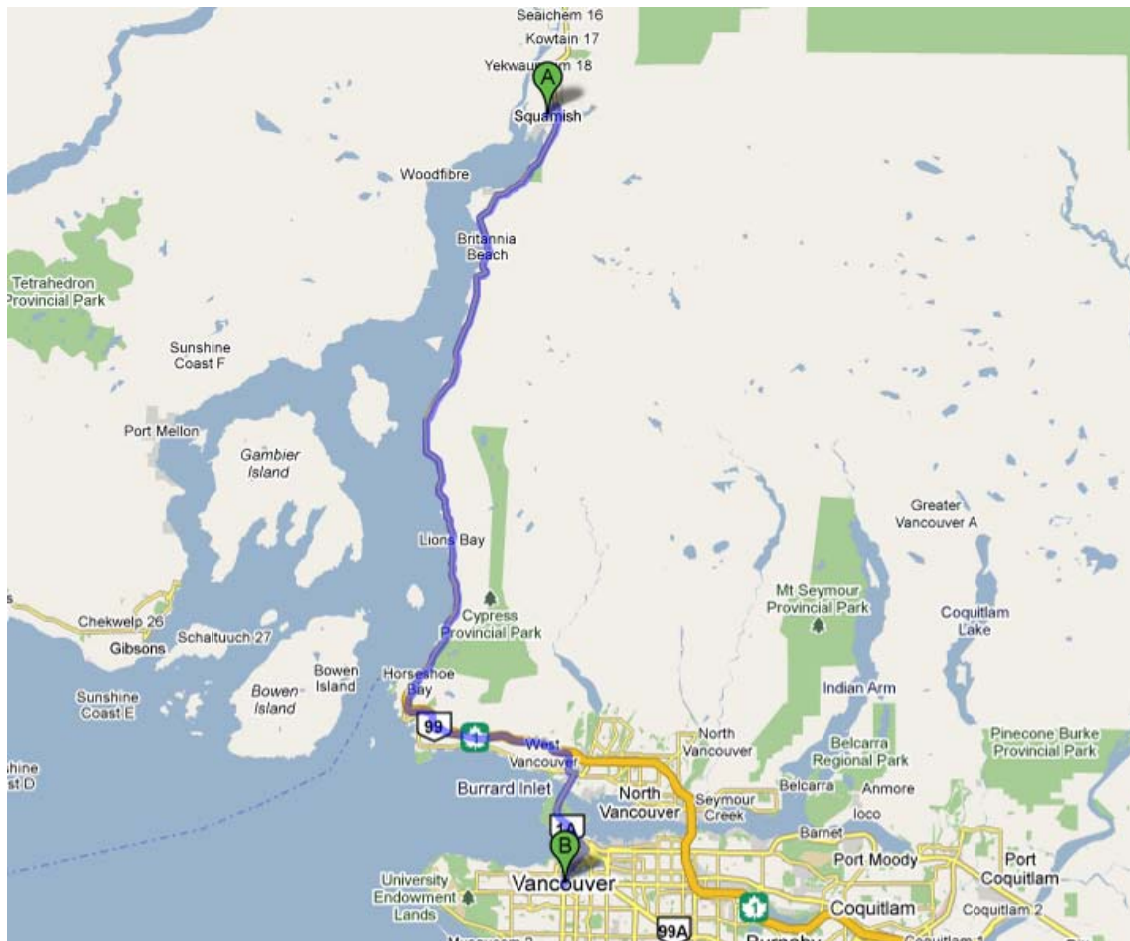


Figure 1 - Squamish-Metro Vancouver Corridor

As per the recommendations made by AECOM in the 2008 District of Squamish Transit Business Plan,<sup>1</sup> this report considers the introduction of a commuter bus service between Squamish and Metro Vancouver (see Figure 1). As well, several other alternatives that would help reduce the demand for personal vehicle usage and provide more a reliable, convenient and affordable transportation service are examined. This study, with some foresight, was commissioned by the District of Squamish.

<sup>1</sup> AECOM. (2008). *District of Squamish Transit Business Plan - Final Report*.



A Squamish-Metro Vancouver commuter bus service is not a new idea, but with the construction work related to the Sea-to-Sky Highway Improvement project coming to an end and high rates of population growth anticipated in the Squamish-Vancouver Highway 99 Corridor in the next few decades, it seems particularly timely to introduce such a service. Furthermore, considering that we may again experience high gasoline prices (such as those seen in summer 2008) in 2010 as the world economy recovers, and the environmental degradation that is caused by transportation, improving transit services is both appropriate and necessary.

## 2.0 Objectives

### 2.1 Study Scope

The scope of this study includes the following:

- Develop feasible and viable transportation options that provide an alternative to driving for travel along the Highway 99 Corridor between Squamish and Metro Vancouver;
- Focus on commuter travel between Squamish and Metro Vancouver, as well as non-work trips where possible;
- Examine ways that the commuter service can be better integrated with local service in Squamish and Metro Vancouver;
- Consider a full range of transportation options including transit, vanpools, carpools, and existing transportation providers such as commercial buses;
- Determine the expected ridership, revenue and potential stops for these transportation options;
- Determine the potential budget required to fund these transportation options; and
- Determine the features that should be included in these transportation options.

### 2.2 Environmental and Community Objectives

The environmental and community objectives of this study include the following:

- Reduce the environmental footprint and greenhouse gas emissions of trips made between the District of Squamish and Metro Vancouver;
- Reduce traffic congestion and improve safety along the Squamish-Vancouver Highway 99 Corridor;
- Increase employment and educational opportunities for residents of Squamish and Metro Vancouver;
- Meet the travel needs of the growing aging and mobility-impaired population, the growing Squamish labour force, and those who do not have access to a private vehicle; and
- Support the 2005 Squamish Growth Management Strategy's goal of having a multi-modal transportation terminal in the downtown area.

### 2.3 Passenger Service Objectives

The study also aims to achieve the following passenger service objectives:

- Provide frequent, convenient, affordable, and efficient transportation service between major residential areas, key employment locations, and popular recreational spots along the Highway 99 Corridor;
- Provide service options that correspond to the shift times for the greatest number of employees;
- Provide service for recreational trips, if possible;
- Provide a commuter service that is connected to major transit hubs and local transit services; and

- Provide a commuter service that is integrated with Squamish Transit and TransLink's schedules and fares, if possible; and.
- Provide a service option that complements Greyhound and Pacific Coach Line services.

## 2.4 Financial and Performance Objectives

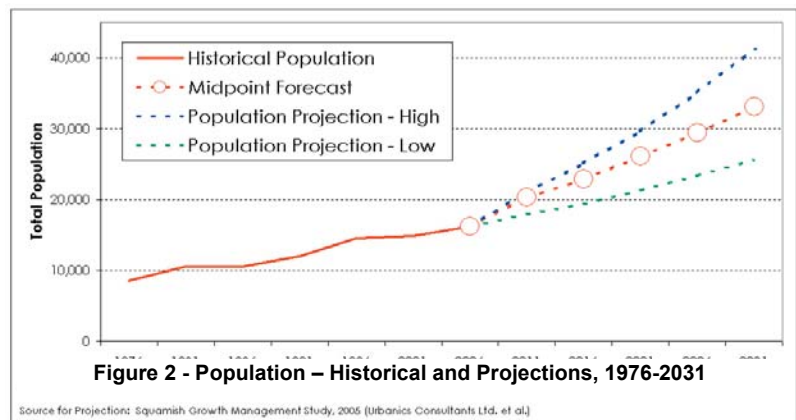
To ensure the new commuter service is financially feasible and its performance remains strong, the study aims to develop service options that are:

- Appropriate for the size of the market being served in order to ensure that resources are used efficiently (if appropriate, an option would be to provide a range of service options to serve different market niches in the most efficient manner);
- Able to include performance measures to forecast and to monitor performance on the services which are developed;
- Able to secure long-term sustainable sources of funding; and
- Integrated with active forms of transportation and existing local transit services.

# 3.0 Market Analysis and Future Growth Patterns

## 3.1 Population Growth

The District of Squamish's population was 14,247 in 2001 and 14,953 in 2006, and is expected to continue to grow. According to the 2007 Draft Squamish Official Community Plan, the estimated population in 2011 will be 20,300, and in 2021 it will reach 26,100 (Figure 2). In the longer term (2031), the population will reach approximately 33,100.



## 3.2 Age Distribution

On average, the population of the District of Squamish is younger than the rest of BC. In 2006, the median age in the District was 35.9 years of age, as compared to 40.8 years of age for the rest of the province. Over 20% of the population was also under the age of 15. Only 10% was between 55 to 64 years old and 9% was aged 65 and above. Thus, the percentage of people entering the labour force and the transportation demand for work trips will continue to grow in the short to medium term.

In 2031, it is expected that the median age will rise to 44.5 years old and 26% of the population will be 55 years and older. Therefore, in the longer term, more accessible modes of transportation will be required for a larger portion of the population.

### 3.3 Employment Distribution and Growth

Currently, there is a relatively high percentage of the Squamish population participating in the labour force. In 2006, 75.1% of the population 15 years of age and older was employed and the unemployment rate was 6.2%.

Squamish is also becoming a community of commuters. According to the 2006 Census, approximately 1,300 residents commuted to Whistler year-round and another 875 commuted to Metro Vancouver year-round (Table 1) (these numbers do not include those who work seasonally; therefore, the number of Squamish residents working in Whistler during the winter peak season is likely significantly higher). In the reverse directions, about 60 Whistler residents worked in Squamish year-round, and 135 Metro Vancouver residents commuted to Squamish year-round (Table 2). Furthermore, these figures were taken before the Metro Vancouver-Whistler Sea to Sky Highway was significantly upgraded, which has improved safety, reliability and timeliness of the trips between Metro Vancouver and Squamish. Therefore, the number of trips made along the corridor has more than likely increased. More details about the commuting patterns of Squamish residents can be found in Section 4, but the employment distribution patterns outlined above do suggest that there is a significant demand for transportation services between Squamish and these other areas.

Table 1 - Place of Work of Squamish Residents, 2006

Squamish Residents - Place of Work	
Place of Work	Total Count
Squamish	3875
Whistler	1305
City of Vancouver	315
City of North Vancouver	180
District of North Vancouver	95
West Vancouver	105
Burnaby	95
Surrey	30
Delta	30
Richmond	25
Squamish-Lillooet Regional District Subarea D	25
<b>Total</b>	<b>6080</b>
<b>Total Metro Vancouver</b>	<b>875</b>

Table 2 - Place of Residence of Squamish Employees, 2006

Squamish Employees - Place of Residence	
Place of Residence	Total Count
Squamish	3875
Squamish-Lillooet Regional District Subarea D	120
Whistler	60
City of Vancouver	40
Burnaby	40
West Vancouver	30
City of North Vancouver	25
<b>Total</b>	<b>4190</b>
<b>Total Metro Vancouver</b>	<b>135</b>

### 3.4 Land Use Patterns and Growth Management Strategy

In the 2005 Squamish Growth Management Strategy, Squamish is envisioned as a future “community of communities”, whereby mixed use neighbourhood nodes would be distributed throughout the municipality. These nodes would consist of neighbourhood-scale retail, shopping, services, and institutional facilities in close proximity to residences. As a result, local community members would be able to travel shorter distances (via walking, cycling, and public transit) to access daily services.

Currently, Squamish is already characterized by a number of distinct neighbourhoods, including Valleycliffe, Brackendale, Garibaldi Estate, and Garibaldi Highlands. The purpose of the mixed use neighbourhood nodes is to support the development of more complete communities. At the same time, development within the downtown area will also be promoted and higher order services would continue to be situated in the downtown core and the priority for future growth of the municipality would still be Downtown Squamish.

If this vision is realized, it may mean that Squamish residents will be able to reduce their trips to Metro Vancouver for shopping and other non-work purposes. However, employment and post-secondary opportunities may remain limited within the municipality. Therefore, the labour force will still likely have transportation demands that need to be met.

In addition, a multi-modal transportation centre at the north end of Downtown Squamish by the CN railway corridor, from which Greyhound, local and inter-municipal commuter transit services would operate, has been envisioned within the draft 2031 Transport Plan for Squamish Downtown Peninsula. The 2005 growth strategy, as well as the 2008 Squamish/BC Transit 5 Year Transit Business and Strategic Plan also recommends encouraging public transit service in the Sea-to-Sky Corridor. All of these plans therefore support establishing a commuter bus service between Squamish and Metro Vancouver, and possibly including a stop at the multi-modal downtown terminal. The commuter bus service may also be able to make stops at one or two of the community nodes (e.g., Garibaldi Highlands) before proceeding to the downtown station. Such a service would increase connectivity to local transit systems, reduce traffic congestion and greenhouse gas emissions, increase transit ridership, and offer more flexible and reliable transportation options.

## 4.0 Current Transportation Patterns

### 4.1 Commuting Patterns

According to the 2006 Census, 5.6% of the Squamish working population worked at home that year. 75.1% of the population drove to work, 13.2% of the population traveled to work in a car as a passenger, 2.7% traveled by public transit, and 7.1% walked or biked to work.

To get a better picture of the total amount of driving that occurs between Squamish and Metro Vancouver, we turn to traffic volume data collected by the Ministry of Transportation. The Ministry operates a traffic counter on Highway 99 just 2 km north of Murrin Park Access and 6.2 km south of Cleveland Avenue, south of Squamish. Unfortunately, the surveys do not provide detailed information with regards to road user type (e.g., commuter vs. tourist) or destination. However, Figure 4, which shows hourly traffic volumes recorded by the traffic counters in February 2006, could be interpreted as follows:

THIS PHOTO IS CURRENTLY UNAVAILABLE.

Figure 3 - Highway 99, Squamish

flickr

- The 7:00-8:00 am count of over 300 southbound vehicles likely represents commuting trips from the Squamish-Lillooet Region to Metro Vancouver.
- In the afternoon, there is a peak in both the northbound and southbound traffic at 4:00-5:00 pm, where the traffic volume reaches over 500 vehicles in either direction. However, much of this traffic may likely be visitors and daytrippers.

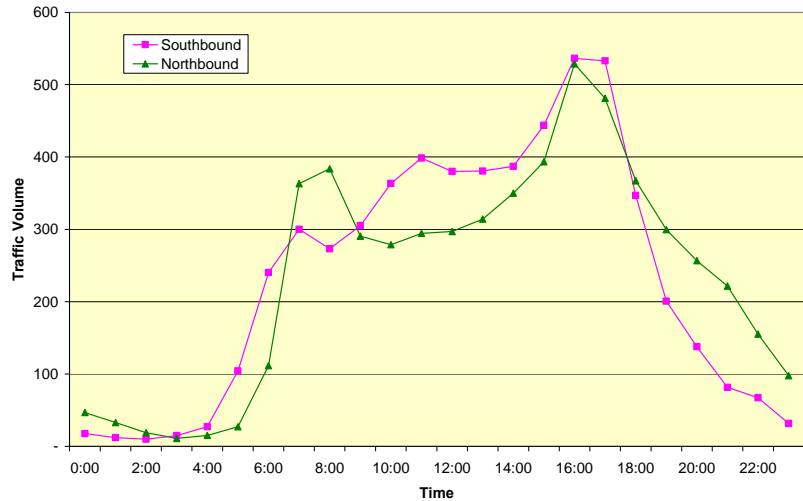


Figure 4 - Daily Traffic Volume, February 2006

Figure 5 also shows the travel demand between Metro Vancouver and the Sea-to-Sky Corridor in 2004. All of the trips shown in these two graphs (which exclude goods movement) either began or ended along the Sea-to-Sky Corridor. Although the trips that began or ended in Squamish cannot be separated out, it is apparent that the peak morning demand for southbound trips (those trips that originated along the Sea-to-Sky Corridor) outweighed the demand for northbound trips (those that originated from Metro Vancouver). In the afternoon, the opposite pattern was seen. This supports the census data in that there are more Squamish residents commuting to Metro Vancouver than vice versa. This also shows the approximate size of the markets for various transit services (i.e., a peak period service from Squamish to/from North Vancouver).

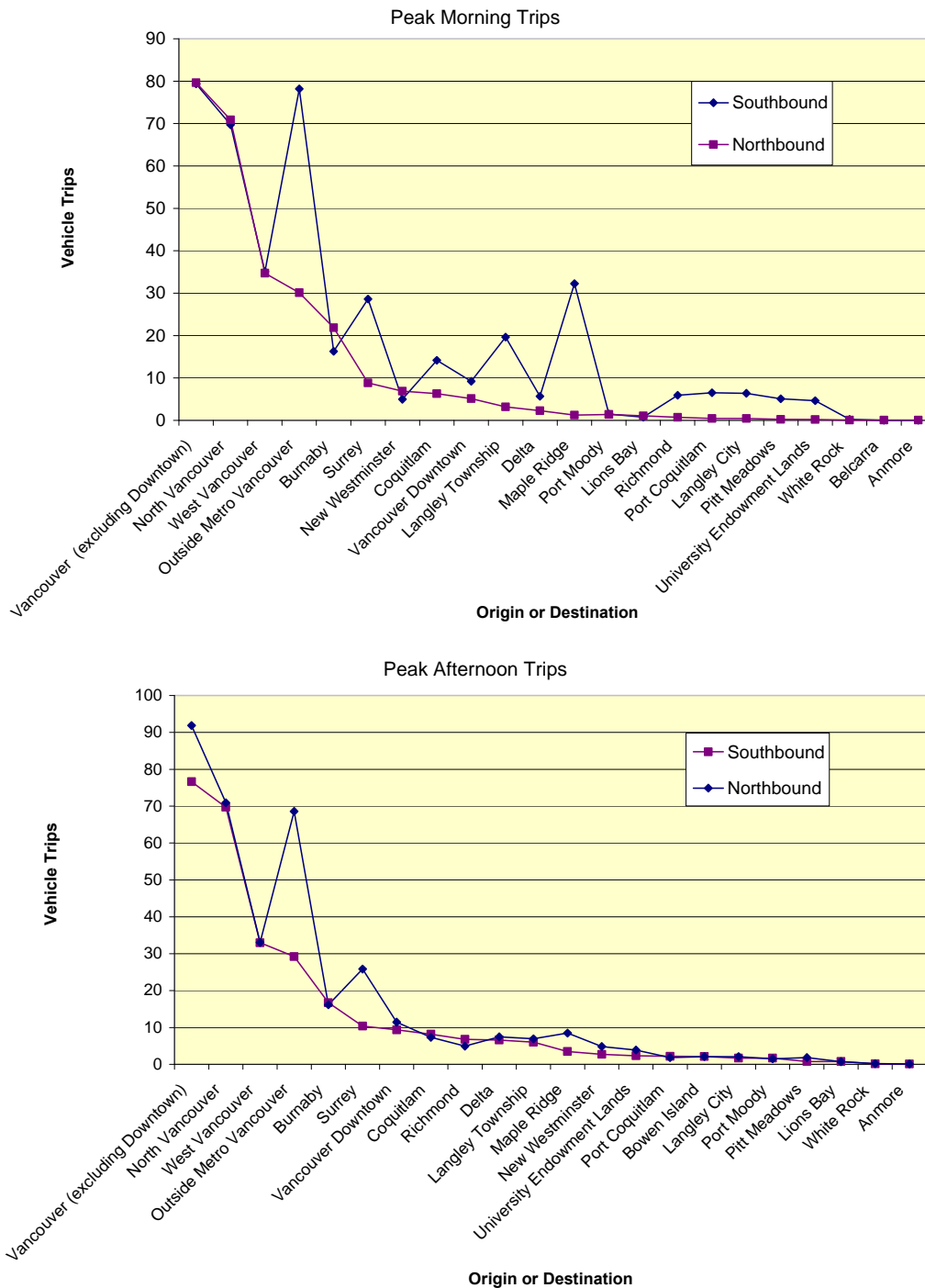


Figure 5 - Trips that Began or Ended Along the Sea-to-Sky Corridor, 2004

Another study conducted in 2001 by TSi Consultants and McyIntyre and Mustel also helps shed some light on the profile of the road users who may be currently using the Sea-to-Sky Corridor. The stated preference survey revealed that approximately 23% of the total passenger trips were for commuting purposes, 54% were for recreational or social purposes, approximately 6% were for shopping or personal purposes, and 17% were trips made by non-residents. Table 3 provides a daily and annual breakdown of the travel demand.

Table 3 - 2001 Sea-To-Sky Trip Summary (one-way-trips)

Trip Purpose	Daily Trips (AADT)	Annual Trips
Commuting/Business	6,920	2,524,704
Recreation/Social	16,380	5,976,875
Shopping/Personal Business	1,950	710,290
Non-Resident	5,050	1,843,980
<b>Total</b>	<b>30,300</b>	<b>11,055,849</b>

Source: Sea-to-Sky Corridor Travel Demand Study (TSi Consultants and McIntyre and Mustel, 2002).

## 5.0 Results of Squamish Surveys

### 5.1 District of Squamish Survey, August 2008

Mid-2008, the District of Squamish sent out a questionnaire to determine the level of support for a commuter service between Squamish and Metro Vancouver. A total of 634 responses were received. Of those who responded, 51% indicated that they commute to Vancouver and 54% responded that they would participate in a commuter program. 27% replied that they would use the commuter service 5 days a week, and 16% replied that they would use the service 3 or 4 days a week. The online version of the questionnaire also asked about a vanpool program, and 63% of those respondents stated that they would participate in a vanpool program.

The survey results also revealed some of the preferred drop-off locations for the proposed commuter service. Table 4 shows the most popular choices (respondents were able to choose more than one option).

Table 4 - Most Preferred Drop-off Locations in Metro Vancouver

Location	Number of Responses
Sea Bus	238
Park Royal	224
Vancouver Bus Loop (Main Street Station)	200
Lions Bay with a connection to the Sea Bus or Park Royal	182
Downtown area	44
Horseshoe Bay	11
Phibbs Exchange, North Vancouver	8
Lonsdale	6
Lions Gate Hospital	6
SkyTrain Access	5
Capilano College	4
North Vancouver Bus Loop	3

For times of operation, most respondents (214, or 38%) preferred to leave Squamish between 6:00 and 7:00 am, with the 7:00 am option being the most popular. 50 respondents also requested service between 5:00 and 5:45 am, and 51 respondents requested service between 7:15 and 8:00 am. For return trips, most respondents (186, or 29%) preferred to leave Vancouver between 4:00 and 5:00 pm. A further 51 respondents preferred leaving between 3:00 and 3:30 pm, and another 50 preferred leaving between 5:10 and 6:00 pm. The complete results are shown in Table 5.

**Table 5 - Preferences for Operating Times**

Leaves Squamish at:		Leaves Lower Mainland at:	
4:00am to 4:50am	8	1:00am	1
5:00 am to 5:25am	15	6:00am to 7:10am	5
5:30am	28	9:00am to 1:30pm	4
5:45am	7	2:00pm to 2:45pm	7
6:00am	48	3:00pm	25
6:15am	8	3:15pm	3
6:30am	47	3:30pm	23
6:45am	30	4:00pm	53
7:00am	81	4:15pm	3
7:15am	12	4:30pm	50
7:30am	23	4:45pm	4
8:00am	16	5:00pm	76
8:30am	2	5:10pm	4
9:00am	3	5:30pm	26
1:30pm	1	5:45pm	1
3:30pm	1	6:00pm	19
4:00pm	1	6:15pm	2
		6:30pm	5
		7:00pm	12
		7:15pm to 11:00pm	6

Source: District of Squamish (2008).

Of the respondents who reported their current mode of transport for commuting trips, 65% indicated that they use their own personal vehicle, and 18% use a private carpool system. A further 11% use commercial transport such as Greyhound and 6% use a public carpool program such as the Jack Bell Vanpool program. The complete results are shown in Table 6

**Table 6 - Current Mode of Transport Used by Commuters**

Mode of Transport	Number of Responses	Percentage of Responses
Personal Vehicle	327	65%
Private Carpool	89	18%
Commercial Transport	55	11%
Public Carpool	30	6%

## 5.2 AECOM Survey, May 2009

A 17-question survey 9 (see Appendix A )was distributed in the District of Squamish to further expand on the survey conducted by the District of Squamish and to determine what features of a new express commuter service would be most important for attracting customers. The commuter service proposed in the survey would operate during the peak periods to supplement the existing Greyhound Bus service and would either follow the Greyhound route into Downtown Vancouver or go to Lonsdale Quay where passengers could transfer to the SeaBus.

The survey was publicized in The Squamish Chief (mid-April to May 23, 2009) and on the District of Squamish website. Respondents were given the opportunity to complete the survey on-line, mail or fax their response, or return a hard copy of their survey response to the District of Squamish Municipal Hall. Although a lower number of responses (a total of 150) were received in comparison to the 2008 survey (which was mainly due to the longer response period provided by the 2008 survey and the fact that the 2008 survey was sent out to all property owners as a tax notice insert), new and valuable information was collected in this second survey. The results also supported the 2008 survey results.

Of the 150 responses received, 86% of the respondents indicated that they travel to Metro Vancouver on a regular basis during the morning commute period (5:30-9:00 am), while the remaining 14% indicated that they do not travel to Metro Vancouver during this time period. Approximately 48% of the respondents travel to and from Metro Vancouver 5 days a week, 26% travel to Vancouver 3-4 days a week, and 17%



go to Vancouver 1-2 days a week. Only 9% of the respondents never or infrequently travel to Metro Vancouver.

The results of the 2009 survey are consistent with that of the 2008 survey in terms of mode split (percentage of commuters who drive alone, ride as a passenger, take transit, and carpool). The survey also indicates that 48% of the respondents have used the existing Greyhound bus service to travel between Squamish and Metro Vancouver, and that many more people would use transit for their trips to Metro Vancouver if the proposed Squamish-Metro Vancouver commuter bus service was added.

The most common trip origins are Mamquam Rd and Highway 99, Clarke Dr and Highway 99, and Garibaldi Way and Highway 99. Other frequently reported trip origins were Hospital Hill, Perth Dr and The Blvd, Mamquam Rd and Government Rd, and Government Rd and Eagle Run Dr. In addition, many respondents indicated that they begin their trips from the Garibaldi Highlands, Downtown Squamish, the Valleycliffe neighbourhood, and Garibaldi Way, without specifying an intersection.

In terms of preferred drop-off locations, the respondents of this survey seemed to have slightly different preferences than the respondents of the previous survey. More people preferred to be dropped off in Downtown Vancouver than at the SeaBus or at Lions Bay. The table below shows the overall ranking of the drop-off locations.

**Table 7 - Preference for suggested potential stops for the proposed express bus service**

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Low	Medium	High	Overall Ranking
Downtown Vancouver at Hotel Vancouver (Burrard & Georgia)	25 18%	29 20%	87 62%	1
Park Royal	37 27%	42 31%	56 41%	2
Downtown Vancouver at Waterfront Station	38 28%	40 30%	56 42%	3
Lonsdale Quay - with transfer to SeaBus	42 32%	39 30%	50 38%	4
Horseshoe Bay - BC Ferries	65 51%	31 24%	32 25%	5
VIA Train Station (Pacific Central Station)	72 57%	28 22%	27 21%	6
Lions Bay community	103 80%	16 13%	9 7%	7

Other potential stations that respondents noted that were important and not listed in the survey were the Phibbs bus exchange in North Vancouver, Lions Gate Hospital, Cambie St and Broadway, Granville St and Broadway, Capilano Mall, the University of British Columbia, Capilano University, and Main St and Broadway.

When asked what additional trip times should be added to the morning and afternoon peak periods to supplement the current Greyhound bus service, the responses were also consistent with that of the previous survey. Most respondents indicated that 6:00 and 7:00 am, and 3:30 and 5:30 pm would be the most appropriate morning and afternoon additions, respectively.

The most popular choice for a one-way fare was \$5.00. Approximately 28% of the respondents selected this option. The next three choices were \$7.00, \$6.50, and \$4.00. The more detailed results are shown in Table 8.

**Table 8 - Preferred cost of a one-way trip on the proposed express bus service**

Suggested Fare	Number of Responses	Percentage of Total Responses	Overall Ranking
\$5.00	40	28%	1
\$7.00	25	18%	2
\$6.50	24	17%	3
\$4.00	24	17%	3
\$8.00	15	11%	4
\$10.50	7	5%	5
\$9.00	7	5%	6

Most respondents indicated that the reliability of the service would be by far the most important attribute of the proposed system. In addition, a designated drop-off spot and parking at the bus stops in Squamish, connectivity with local transit services, and weekend service were also viewed as being important. Less emphasis was placed on the free use of local transit services for monthly pass holders, weekday mid-day service, a Downtown Squamish off-street transit exchange with heated shelters at which local and commuter buses could meet, and the age of the buses.

The survey also gave respondents the opportunity to provide additional comments with regards to desired features. Many respondents requested bike racks on buses and bike storage at bus stations. Shorter travel time was also seen to be very important. In particular, three respondents thought that there should be limited stops to minimize travel time. Affordability was another key issue mentioned by several respondents; two people noted that the monthly cost should be between \$150 and \$180.

Some respondents also requested that the evening service end later (i.e., sometime between 7:30pm and 9:00 pm). Others thought that it was important to have connectivity with other transit services such as the new Canada Line. In addition, several respondents suggested selling tickets in advance (e.g., online) so that drivers do not have to worry about collecting fares and issuing tickets and extend travel time.

Reliability was again emphasized to be an important factor in encouraging people to continue using the service, as were weekday mid-day and weekend service and service for the reverse commuting direction. The use of comfortable buses (e.g., coach buses) was also recommended. A few respondents also requested that the morning service start earlier (e.g., 5:15am or 5:30am).

In addition, the survey asked respondents to identify the key barriers that are currently preventing them from using the Greyhound service and from van/carpooling (Jack Bell program or personal carpool). The largest barrier to using the Greyhound service appears to be the inconvenient schedule of the buses. Many respondents noted that the service is too limited, starts too late in the morning, ends too early in the afternoon, and does not accommodate shift work schedules. The travel time is also seen as being too long. Reasons for the lengthy travel time include the selling of tickets on-board buses by drivers and too many stops. As a result, buses are often late and therefore unreliable. The bus stops are also often far from the respondents' ultimate destination, which are sometimes inaccessible by local transit. In addition, the service is perceived to be too costly in comparison to driving personal vehicles, and there is often not enough capacity on the buses.

Similarly, respondents noted that the largest barrier to using a Jack Bell van/carpool or a personal carpool is that the existing van/carpool schedules do not fit with their own schedule, especially for those with irregular work hours. Many also felt that the Jack Bell van/carpooling program is not affordable and that they are unable to find matches that have the same destinations. The lack of flexibility was also identified to be a serious barrier. As well, some respondents admitted they were not aware of the Jack Bell program and four respondents said that their infrequent travel to Metro Vancouver makes it difficult to carpool.

The last question of the survey gave respondents the opportunity to provide additional comments. The most common response received was that the proposed service would be a welcomed addition to the

existing bus service. Other comments included emphasis on travel time, affordability, and longer operating hours.

Some respondents also commented that having a convenient and efficient express bus service between Squamish and Metro Vancouver would encourage more people to move to Squamish, as well as increase employment and educational opportunities for Squamish residents.

Other useful comments suggested by respondents included extending the West Vancouver Blue Bus system to Squamish, encouraging Capilano University to donate funding to this express service and their students to use this service, and using smaller buses for weekday mid-day service.

## 6.0 Inventory of Existing Transportation Options

### 6.1 Pacific Coach Lines

Pacific Coach Lines (PCL) currently operates a transit service between the Vancouver International Airport (YVR) and Whistler, with a stop in Squamish when requested. Within Vancouver, en-route pick-ups are possible, but reservations are required. The buses stop at Whistler Village and the Squamish Adventure Centre.

A one-way fare to Squamish is \$36.75 and \$18.90 for adults and children, respectively; round trips are \$73.50 and \$37.80 for adults and children, respectively. There is also a \$15 discount for Whistler residents for each one-way trip (residents must take their proof of residency to the PCL office to get a pass) and children 4 years old and younger travel for free. There are currently no employee discounts.



Figure 6 - Pacific Coach Lines Bus

Each one-way trip between YVR and Squamish is approximately 1 hour and 45 minutes. Departures during the peak ski season from YVR are approximately every hour, with the first departure at 8:30 am and the last departure at 11:00 pm (buses do not operate at 6:00 pm, 8:00 pm, or 10:00 pm). During the off-peak season, there is approximately one departure every two hours, with the first departure at 8:30 am and the last departure at 7:30 pm.

## 6.2 Greyhound

Greyhound also operates a transit service between Vancouver and Squamish. The terminal in Vancouver is Pacific Central Station, and the main terminals in Squamish are the Sea-to-Sky Business Services office in Brackendale (located at 40446 Government Road) and Squamish South (these two stations are a 15-20 minute walk from each other). Depending on the which schedule passengers travel on, the bus will also stop at Lions Bay, Burrard and Georgia, Park Royal, Horseshoe Bay, Furry Creek, and Britannia Beach.



Figure 7 - Greyhound Bus

The fare schedule for this service is as follows:

- Monday to Thursday, two-way refundable fare: \$30 (\$15/one-way trip)
- Monday to Thursday, two-way non-refundable fare: \$26.46 (\$13.23/one-way trip)
- Friday to Sunday, two-way refundable fare: \$33.81 (\$16.91/one-way trip)
- Friday to Sunday, two-way non-refundable fare: \$29.61 (\$14.81/one-way trip)
- Book of 10 tickets: \$111.13 (\$11.11/one-way trip)
- Book of 20 tickets: \$130.00 (\$6.50/one-way trip)

One-way and return tickets can also be purchased in advance (e.g., 7 days, 14 days, or 21 days prior to departure) at discounted prices. These discounts are shown in Table 9. All prices mentioned above and in Table 9 include sales tax.

Table 9 – Advance One-Way Ticket Prices for Greyhound

	Monday-Thursday	Friday-Sunday
21-day Advance Purchase	\$7.35	\$7.35
14-day Advance Purchase	\$9.98	\$12.08
7-day Advance Purchase	\$11.55	\$13.13

\*There are no discounts for return fares.

The duration of a one-way trip from Vancouver to Squamish is 1 hour and 25 minutes to 1 hour and 55 minutes. On weekdays and weekends, buses depart from Vancouver at: 5:15 am, 8:00 am, 10:00 am, 1:00 pm, 3:00 pm, 5:00 pm, and 7:00 pm. Departures from Squamish are: 6:20am, 9:05 am, 11:35 am, 2:35 pm, 5:30 pm, 7:35 pm, and 9:50 pm.

## 6.3 Sea to Sky Transit between Whistler and Squamish

Since 2005, BC Transit, in partnership with the Resort Municipality of Whistler and the District of Squamish, has been providing a commuter bus service (called the Sea to Sky Transit system) between Whistler and Squamish. There are five stops in Squamish (Chieftain Centre, Guildford and Westway, Spruce and Westway, Highlands Mall, and the Greyhound station in Squamish North), although not all trips stop at all five locations, and two stops in Whistler (Whistler Creek and Gondola Transit Exchange). The cash fare is \$5.00 for adults and \$4.00 for seniors and youth up to the age of 18. Booklets of 10 tickets can be purchased for \$45 and monthly passes are \$145. Passengers can also transfer to local transit in Whistler and Squamish, and passengers using the Sea to Sky service for local Squamish service (i.e., they only travel within Squamish) simply pay the regular Squamish transit fare.

The schedule is designed to meet shift start and finish times in Whistler and there are a total of up to 4 trips (in addition to the Greyhound service) made each day in either direction (two in the morning and two in the afternoon/evening). Depending on where the buses start or end in Squamish, the total trip time between the termini in Squamish and Whistler ranges between 1 hour and 1 hour and 28 minutes.

In addition, an Emergency Ride Home program is available in case of employee emergencies. Regular users of the Sea to Sky service can take a taxi home in cases of emergency and they will get reimbursed for the cost of the trip (excluding tip). Each regular user can get reimbursed for up to two trips a year. As well, to supplement this service, passengers can use the Greyhound services at a reduced price. Greyhound commuter tickets (Faresavers) can be purchased at a rate of \$90 for 20 tickets. These tickets are available at Whistler and Squamish's Municipal Halls.

Between 2005 and 2007, the service was only available between November and April (to accommodate the winter employment force). As a result, some of the initial riders would have had to find alternative means of transportation during the rest of the year if they had to commute between the two municipalities throughout the year. Therefore, the service lost some of the year-round commuters and there was a drop in ridership within the first three years of service. In 2008, however, the service was extended to being a year-round service. This attracted more riders. In fact, between the months of November and July of 2007/2008 and 2008/2009, the ridership increased by 38%.

The annual direct operating cost for the transit service is \$694,000 (or \$142/revenue hour). Another \$113,000 is spent on subsidizing the Greyhound tickets and other costs. The revenue recovered through the transit service is \$159,000 (or a 23% cost-recovery rate).

#### **6.4 Whistler-Pemberton**

Another commuter service serving the Squamish-Lillooet Regional District is the Pemberton-Whistler bus, which is operated jointly by Greyhound and Whistler Transit. There are three stops in Whistler (Gondola Transit Exchange, Meadow Parks Sports Centre, and Whistler Greyhound Intercity Bus Loop) and it stops at the Pemberton Hotel.

The cash fare is \$3 for adults and \$2.50 for seniors and youth up to the age of 18. Booklets of 10 tickets can be purchased for \$27 for adults and \$22.50 for seniors and youth. Monthly passes are \$75 for adults and \$50 for seniors and youth. Commuters can also use any WaveCard (which allows unlimited travel within a specified duration of time) by adding \$1.00 to each ride.

Each day, there are 9 departures in each direction. Within Whistler, 3 buses start their trips at the Gondola Transit Exchange, and 6 buses start their trips at the Whistler Greyhound Intercity Bus Loop. Similarly, in the opposite direction, three buses end their trips at the Gondola Transit Exchange and six end their trips at the Greyhound Intercity Bus Loop. The first and last buses leaving Pemberton are at 4:40 am and 6:40 pm, respectively, and the first and last buses departing Whistler are at 6:32 am and 9:40 pm, respectively.

## 6.5 Jack Bell Vanpooling Program

The Jack Bell Vanpooling program allows members to use a Jack Bell fleet vehicle on a regular basis to carpool to work/school. In turn, the users pay a monthly fee that covers the cost of gasoline, insurance, maintenance costs, and the leasing of the vehicles.

As of September 2008, there were 106 Squamish/Vancouver commuters registered with the Jack Bell Vanpooling program, and a total of 9 Jack Bell fleet vehicles being used: 4 vans with a maximum of 8 people/van, and 5 cars with a maximum of 5 people/car (the cars usually only have 4 people, as riders have often found that the cars are too small to comfortably fit 5 people on a long trip). The Jack Bell Foundation advises that not

all of the seats get filled in these vanpools and although there were 106 users registered, not necessarily all of these registered users had found car/vanpools. Thus there were (and still are) many inactive users. This is due to the difficulty in finding a group of commuters who are willing to leave their personal automobiles at home and share a 7-8 passenger van. Furthermore, for reasons of comfort and convenience, some users will only vanpool a certain number of days out of the work week.

The cost per person per month is approximately \$226 for the 4-5 passenger cars (i.e., \$11.30/day) and \$183 for the 7-8 passenger vans (i.e., \$9.15/day). The fleet vehicles can also be used on weekends, but there is a charge of up to \$0.30/km (a round trip between Vancouver and Squamish is approximately 140 km).



Figure 8 - Jack Bell Vanpooling Program

# 7.0 New Supplementary/Enhancement Services

## 7.1 Evaluation Criteria

The results of the two surveys described in Section 5 confirm that there is a demand for a commuter service between Squamish and Metro Vancouver. Furthermore, the responses received indicate that the existing services need to be enhanced or supplemented to meet this demand. In order to adequately serve the existing and future transportation needs, from the perspective of the users, the enhancements would need to meet the following criteria.

- Be affordable to users – as mentioned in the survey results, the costs of the current services are prohibitive for daily use. In order to attract passengers to the service, the cost of the service needs to be competitive with the use of passenger vehicles.
- Offers a convenient schedule – the schedule should offer a variety of departure times throughout the day to accommodate more employees and/or visitors making recreational trips.
- Is flexible (allows different levels of user commitment) – a flexible system allows riders some variation in the time that they can use the system (i.e., they do not have to commit to making the same trips each day) and does not require riders to commit to using the system every day.
- Travel time is minimized.
- Offers conveniently located pick-up and drop-off locations.
- Provides a convenient means for transporting bicycles.

- Is universally accessible.
- Is reliable – the service should leave and arrive on-time the vast majority (e.g., 98%) of the time
- Offers convenient connections to local transit, if required. There are several key transit connection points within Squamish that could be used as stops. Currently, the intersection of Highway 99 and Cleveland (the entry point to downtown Squamish) is served by bus #98 (Squamish Commuter to Whistler, which also stops at Squamish General Hospital) and bus #3 to Valleycliffe. A connection to bus #1 would be possible if the new/enhanced commuter service stopped at Station Square Mall. The Garibaldi Way and Highway 99 intersection is also served by buses #1 and #2, both of which make a stop at Highlands Mall. To ensure connectivity between a new/enhanced scheduled commuter service and these existing local transit services, the local bus routes could be scheduled to meet the buses going to and from Vancouver. However, this would require further review of the existing Squamish Transit system.
- Offers free transfers to local transit systems.
- Provides easy-to-access service schedules – users with different levels of mobility and access to the phone/internet should be able to easily find out the scheduled departures.

From the perspective of the District of Squamish, the new service or enhancements should also meet the following objectives:

- Be cost-effective – the new service should be able to increase the mode share (the percentage of travelers using a particular type of transportation) of alternative forms of transportation (e.g., public transit, carpooling, etc.) at a reasonable cost to the District of Squamish (i.e., high value for money).
- Be relatively easy to establish.
- Does not directly compete with existing private sector transit services.
- Be able attract a significant ridership – this is an indicator of the usefulness of the service and is also related to the cost-effectiveness of the service.
- Be able reduce the environmental impacts of transportation – this is one of the objectives of the Growth Management Strategy.
- Be able to further the District's growth management strategy and support a multi-modal transportation hub in Downtown Squamish.
- Can reduce traffic congestion

A series of options have been developed to enhance or supplement the existing commuting services. These options are presented below and are evaluated against the above criteria in Subsection 7.3.

## 7.2 Service Options

### New Express Commuter Bus Service

#### Description

The first option is to establish a completely new two-way express commuter bus service between the District of Squamish and Metro Vancouver using new and accessible coach buses. This service would operate as follows:



Figure 1 - Example of a Coach Bus

- It would only operate on weekdays during the initial years of service.
- Given the number of work trips made between the District of Squamish and Metro Vancouver in 2006 (approximately 1010/day) and assuming a transit mode share of 6.5%, there would likely be enough demand for four round trips - two in the morning and two in the afternoon – to be made each weekday using two coach buses.

- These four trips would operate according to the schedule in Table 10. This schedule, which has been devised to minimize the number buses required, would not overlap with the existing Greyhound schedule and would add service close to the times rated most favourably by the 2008 and 2009 survey respondents.

**Table 10 - Schedule for Proposed New Express Commuter Bus Service**

Southbound		Northbound	
Squamish Departures (at first pick-up location)	Vancouver Arrivals (at last drop-off location)	Vancouver Departures (at first pick-up location)	Squamish Arrivals (at last drop-off location)
5:30 am	7:15 am	7:30 am	8:45 am
6:30 am	8:15 am	8:30 am	10:15 am
2:00 pm	3:45 pm	4:00 pm	5:45 pm
3:30 pm	5:15 pm	5:30 pm	7:15 pm

- The pick-up and drop-off locations in the District of Squamish and Metro Vancouver would be centrally located and the number of locations would be minimized to reduce travel times. Potential pick-up/drop-off locations in Squamish include the current Greyhound stop in Brackendale, Downtown Squamish, and one of the existing district neighbourhoods (e.g., Garibaldi Highlands at Highlands Mall where buses #1 and 2 stop). Potential pick-up/drop-off locations in Metro Vancouver include Downtown Vancouver (e.g., Burrard and Georgia), Park Royal Shopping Centre, and Horseshoe Bay.
- One-way bus fares would be priced at \$6.00 and would be purchased before boarding the buses so as to minimize delays. Discounted monthly passes, ticket booklets and senior/student passes could also be offered to provide further financial incentives.
- The schedule and stops of the commuter service would be coordinated to maximize its connectivity with the District of Squamish's local transit services.
- To reduce capital expenditures, a private operator such as Pacific West Transportation, who is currently providing local transit service within Squamish, or another experienced private sector bus company could be contracted to provide, operate, and maintain the buses.
- To further reduce capital expenditures, existing bus shelters would be used wherever possible. For example, the existing Greyhound station in Brackendale, one of the existing Squamish Transit stops in Downtown Squamish, the existing bus stop at Highlands Mall, and the existing TransLink stops at Horseshoe Bay, Park Royal, and Downtown Vancouver could be used. As there are only four round trips made each day, the buses should not be too difficult to accommodate at these stops. However, certain enhancements may need to be made to these stops to ensure there will be no vehicle or pedestrian conflicts (e.g., a larger waiting area for passengers and more vehicle loading space). Furthermore, as this service expands, new bus shelters may need to be built. If the multi-modal transportation centre in Downtown Squamish is built, the downtown stop should also be relocated to the same site.

To further enhance the service so that it is more convenient, comfortable, and time-competitive with automobile travel, it would also offer the following services:

- Bike racks on buses (see Figure 10) and bike storage facilities at the terminals;
- Covered bus shelters at terminals;
- A Guaranteed/Emergency Ride Home program, where users with monthly passes can use a taxi in case of an emergency and get reimbursed for the taxi fare;
- Ensure there is space for passengers to be dropped off by private vehicles and parking spaces for those wishing to park at the central pick-up points and transfer onto the buses; and
- Fares that are integrated with TransLink's SkyTrain, SeaBus, and bus services so that the commuter bus tickets/passes are transferrable to TransLink's services (e.g., Squamish commuters would only be required to upgrade their fares if they travel to zone 3). However, for this to become a reality, negotiations would have to be made with TransLink and BC Transit.



To ensure the service is reliable, buses should also leave on-time for the vast majority (e.g., 98%) of the time.

### Costs and Ridership

The annual direct operating cost for the buses is estimated to be \$625,000. This assumes the following:

- The operating cost (including maintenance and capital) per hour per bus would be \$125 (information provided by Pacific Western Transportation, Squamish Transit's current operator);
- Two buses would be used for this service;
- Each bus would operate 10 hours/day; and
- The buses would operate 250 days each year.



Figure 10 - Bike Racks on Bus

In addition, there would be costs associated with the Guaranteed Ride Home Program. Assuming 50% of the riders are monthly pass holders and each pass holder spends \$200 on taxi fares each year (this allows about 2 trips to be taken), approximately \$7,000 (Year 1) to \$8,000 (Year 3) would be spent on providing the service. The actual amount spent on the program may also be lower, given that the experience of the West Coast Express has shown that people usually do not use their annual allocation of taxi trips.

The annual administrative cost is estimated to be approximately 10% of the direct operating costs (\$63,000), and the annual marketing cost is estimated to be \$20,000. This money would be spent on brochures, maps, signage, etc.

Transit shelter enhancements may also be required at some of the stops and this would be a one-time capital cost of approximately \$100,000 (assuming each stop requires \$15,000-18,000 worth of upgrades). It is assumed that the demand for parking at the central pick-up points would be handled by the existing parking facilities. There may be opportunities for arrangements with local retailers located close to the stops to provide park-and-ride spaces on weekdays.

Table 11 – Costs and Ridership of a New Express Commuter Service

	Year 1	Year 2	Year 3
Transit shelter enhancements (one-time cost)	\$100,000	N/A	N/A
Annual Marketing Costs	\$20,000	\$20,000	\$20,000
Gross Annual Direct Operating and Administrative Cost	\$688,000	\$688,000	\$688,000
Annual Cost of Guaranteed Ride Home Program	\$7,000	\$7,000	\$8,000
Annual Transit Fare Revenue (24-28% cost recovery ratio)	\$165,000	\$178,000	\$192,000
Annual Advertising Revenue	\$13,000	\$13,000	\$13,000
Net Annual Operating Cost	\$537,000	\$524,000	\$511,000
<b>3-Year Total Net Operating Cost</b>	<b>\$1,572,000</b>		
<b>Annual Passenger Trips (or SOV Trips Reduced)<sup>1</sup></b>	<b>33,000</b>	<b>35,000</b>	<b>38,000</b>
<b>Cumulative Passenger Trips (or SOV Trips Reduced) Served in 3 Years</b>	<b>107,000</b>		
<b>Net Cost per Passenger Trip (or per SOV Trip Reduced)</b>	<b>\$14.75</b>		

\*Values may not sum to total due to rounding and are in \$2009.

<sup>1</sup>Ridership estimate for Year 1 is based on a mode share of 6.5%. Estimates for Years 2 and 3 are determined using an annual growth of 8%.

The anticipated annual ridership for the first year of service is approximately 33,000 passenger trips (this can also be considered as the number of single occupancy trips or SOVs reduced per year). This assumes a mode share of 6.5% and a ridership level that is 78% that of the Sea to Sky's ridership in its first full year of operation (2007/2008). This assumption is derived as follows. The size of the Metro Vancouver-Squamish commuting population is approximately 74% that of the Squamish-Whistler

commuting population. The Sea to Sky service, however, only operates 3 buses during the summer months; therefore, providing four round trips year-round between Squamish and Metro Vancouver will likely generate a higher ridership. Therefore, 78% is a reasonable assumption.

In subsequent years (i.e., Years 2 and 3), the ridership would increase by approximately 8% (which, given the experience of the Sea to Sky system, is an appropriate estimate) and reach 38,000 by Year 3. Over a longer period of time, similar to the Sea to Sky transit experience between 2007 and 2009, this ridership would likely increase, especially if additional service (e.g., mid-day, evening, or weekend service) is gradually provided. However, providing additional service trips will also increase operating costs.

In turn, the ridership would generate \$165,000 (Year 1) to \$195,000 (Year 3) in fare revenue (assuming an average one-way fare of \$5). This would give a cost recovery rate of 24-28%, which is reasonable for a new commuter service. Additional revenue streams could include transit advertising (approximately \$13,000, or 2% of the operating cost, which is typical of transit systems). Taking these revenues into consideration, the net annual operating cost would be \$537,000 (Year 1) to \$511,000 (Year 3) and the cumulative total net operating cost for the first three years of service (assuming there are no service enhancements) would be approximately \$1,572,000. A summary of the revenues and expenditures of this program is shown in Table 11.

### *Funding Options*

To operate this new express commuter bus service, the District of Squamish could fund all of the net costs through municipal funds or other sources of revenues (e.g., government grants, private sponsors, etc.). Alternatively, if BC Transit is interested and willing, an initial cost-sharing scheme could be established between the District of Squamish and BC Transit. The Regulations of the *BC Transit Act* set out a formula for sharing the costs of transit service between BC Transit and its municipal transit partners. According to the *Act*, BC Transit funds 46.69% of conventional transit systems and 66.69% of custom/paratransit systems. Such a scheme could be adopted for the new express bus service, bringing the net cost of the service to the District down to \$891,000 for the first 3 years of service (assuming BC Transit pays for a portion of the capital cost as well).

In the long term, after the ridership of the commuter bus has been built up, TransLink could be approached as another funding partner. Further discussion with TransLink would be required to determine how the funding and revenues would be divided.

It is important to note that this service would effectively be competing with Greyhound, and to some degree, Pacific Coach Lines. Thus, the service should be designed so as to minimize the amount of overlap with these two private operators in terms of schedule. At the same time, there should be a branding scheme and marketing strategy devised to market the new service and to ensure the public associates the new service with efficient, high quality service.

### *Regulatory Requirements*

A transit service agreement would have to be developed between the District of Squamish and BC Transit that permits this service to be established. Agreements with the municipalities of Vancouver, West Vancouver, and North Vancouver, and TransLink would also be required to confirm the permitted use of the existing bus stops and the facilities at the stops (e.g., parking spaces, passenger waiting areas, etc.). If BC Transit and/or TransLink were to co-fund the service, annual operating agreements would also have to be developed that specify the fares, level of service, provincial, regional and municipal contributions, proportionate administrative charges of BC Transit, and other matters that may arise.

### 7.3 Subsidize An Existing Commercial Bus Service to Help Reduce Fares

#### Description

To supplement the new commuter service, the District could also subsidize an existing commercial bus operator such as Greyhound to make the fares more affordable. This would provide more affordable transportation options during other times of the day when the commuter service is not operating. As mentioned earlier, one of the barriers to using private bus systems such as Greyhound is cost. To overcome this barrier, a discount could be offered for the 20-ticket booklets, which are currently priced at \$130 (or \$6.50/ticket). To bring the price down to one that is comparable to the average fare of the proposed new commuter service, each one-way ticket would be subsidized by \$1.50. However, these fares would not be transferrable to the local transit systems, and they would only be valid on weekdays (in case the weekend demand on Greyhound is much greater than weekdays and they are unable to handle the increase in demand with their current capacity).

As described earlier, this type of subsidy program is already being funded by Squamish, Whistler, and BC Transit to encourage more Squamish-Whistler commuters to use alternative forms of transportation. Therefore, much of the mechanisms to establish such a program are already in place, which will help expedite the implementation process.

#### Cost and Ridership

Based on the 2008 survey conducted by the District of Squamish, 11% of the respondents commuted to Metro Vancouver via a commercial transportation system such as Greyhound. Assuming Greyhound's mode share within the general Squamish population is actually lower than indicated on the survey (due to a self-selection bias by the survey respondents) and that Pacific Coach Lines also accounts for some of the trips taken on commercial transportation systems, Greyhound is likely transporting around 8% of the Squamish-Metro Vancouver commuting population. Therefore, the annual number of one-way commuter trips currently made on Greyhound is approximately 40,000. Assuming the annual ridership increases by 8% with the introduction of the subsidy and every year thereafter, and 90% of these trips are subsidized by \$1.50, the total subsidy provided in Year 1 would be \$59,000. The annual subsidy provided would be \$64,000 in Year 2 and \$69,000 in Year 3. The cost and ridership of this program are shown in Table 12. It is assumed that this program would be marketed with the new commuter service. Therefore, there are no additional marketing costs for this program.

**Table 12 - Cost and Ridership of a Subsidized Commercial Bus Service that would Reduce Fares**

	Year 1	Year 2	Year 3
Total Annual Passenger Trips	44,000	47,000	51,000
Annual New Passenger Trips (or New SOV Trips Reduced) – in comparison to the base year with 40,000 annual passenger trips	3,000	7,000	10,000
Annual Passenger Trips Subsidized	39,000	42,000	46,000
Annual Fare subsidies	\$59,000	\$64,000	\$69,000
<b>Cumulative Passenger Trips (or SOV Trips Reduced) Served in 3 Years</b>	<b>20,000</b>		
<b>3-Year Total Operating Cost</b>	<b>\$191,000</b>		
<b>Cost per New Passenger Trip (or per SOV Trip Reduced)</b>	<b>\$9.35</b>		

\*Values may not sum to total due to rounding and are in \$2009.

#### Funding Options

It is unlikely that BC Transit or TransLink would fund this subsidy program. Therefore, the District of Squamish may want to consider approaching other municipalities such as the District of West Vancouver and the City/District of North Vancouver to share the cost of this program. These municipalities are natural choices for funding partners, as many of the Squamish-Metro Vancouver commuters work in these areas.

## 7.4 Subsidize An Existing Commercial Bus Service To Enhance Services and Reduce Fares

### Description

A third option would be to subsidize an existing commercial bus service such as Greyhound to provide additional transit service *and* to provide a discount for the 20-ticket booklets so that each ticket would be subsidized by \$1.50. To ensure Greyhound is not over their capacity on the weekends, these tickets would only be valid on weekdays.

Two new coach buses would be added to supplement the Greyhound fleet and they would add the following departures to their schedule: 5:30 am, 6:30 am, 2:00 pm, and 3:30 pm from Squamish, and 7:00 am, 8:00 am, 3:50 pm and 5:00 pm from Vancouver. In addition, the Greyhound services would be enhanced with the following features mentioned above for the proposed new commuter bus service:



Figure 11 - Bus stop in Vancouver

- Have all buses stop at Park Royal Shopping Centre and Downtown Vancouver (currently, only some bus trips stop at these locations);
- Ensure there is space for passengers to be dropped off by private vehicles and parking spaces for those wishing to park at the central pick-up points and transferring onto the buses;
- Coordinate the schedule and stops of the Greyhound system to maximize its connectivity with the District of Squamish's local transit services. However, the Greyhound fares would not be transferrable to the Squamish Transit system or to the TransLink system;
- Ensure there are covered bus shelters at terminals; and
- Offer a Guaranteed/Emergency Ride Home program, where booklet holders with can use a taxi in the case of an emergency and get reimbursed for the taxi fare.

### Costs and Ridership

The subsidy that the District of Squamish would be providing to Greyhound Canada each year to cover the difference in fares would range from \$89,000 (Year 1) to \$103,000 (Year 3). This assumes the following:

- Greyhound's current mode share is approximately 8%;
- The ridership will increase by approximately 48% between the base year and Year 1 of the enhanced service, due to a 57% increase in service levels and a 23% reduction in fare cost. After Year 1, the ridership will by 8% each year.
  - In other words, there will be approximately 240 (Year 1) to 280 (Year 3) one-way passenger trips made per day on the enhanced Greyhound service.
- The average subsidy (not counting the marketing costs and the cost of the Guaranteed Ride Home Program) per one-way ticket is \$1.50.

Any purchases or maintenance cost of transit vehicles would be the responsibility of Greyhound Canada. However, the District of Squamish may have to enhance the transit stops to ensure there is enough space for the buses, private vehicles (for drop-offs), and waiting passengers (at a one-time cost of approximately \$100,000). The Guaranteed Ride Home Program would also cost approximately \$21,000 (Year 1) to \$25,000 (Year 3), assuming that 90% of the riders will be booklet holders and each booklet

holder will spend \$200 on taxi fares each year. In addition, approximately \$20,000 would be spent on marketing the enhanced service. The total cost for the first three years of the program would therefore be \$1,958,000 (see Table 13 for a detailed breakdown of the costs).

**Table 13 – Costs and Ridership of Subsidizing an Existing Commercial Bus Service**

	Year 1	Year 2	Year 3
Transit shelter enhancements (one-time cost)	\$100,000	N/A	N/A
Annual Marketing Costs	\$20,000	\$20,000	\$20,000
Annual Fare subsidies	\$89,000	\$96,000	\$103,000
Annual Subsidy for Guaranteed/Emergency Ride Home Program	\$21,000	\$23,000	\$25,000
Total Annual Operating Cost	\$130,000	\$139,000	\$148,000
<b>3-Year Total Operating Cost</b>		<b>\$416,000</b>	
<b>Annual New Passenger Trips (or New SOV Trips Reduced)</b>	<b>59,000</b>	<b>64,000</b>	<b>69,000</b>
<b>Annual New Passenger Trips vs. base year (or New SOV Trips Reduced)</b>	<b>19,000</b>	<b>24,000</b>	<b>29,000</b>
<b>Cumulative New Passenger Trips (or New SOV Trips Reduced) Served in 3 Years</b>		<b>72,000</b>	
<b>Cost per New Passenger Trip (or per SOV Trip Reduced)</b>		<b>\$5.80</b>	

\*Values may not sum to total due to rounding and are in \$2009.

The annual new ridership in comparison to the base year (or number of one-way SOV trips reduced per year) is expected to range from 24,000 (Year 1) to 35,000 (Year 3). As the fare revenue would be collected by Greyhound Canada, there would be no fare revenue recovered by the District of Squamish. However, there could be other opportunities for cost recovery (e.g., transit advertising) that could help cover some of the District's expenditures.

### *Funding Options*

To fund this enhanced Greyhound service, a cost-sharing scheme between BC Transit and the District of Squamish similar to the one described for the proposed new commuter express bus service could be pursued. In the long term, after the ridership of the enhanced Greyhound service has been built up, TransLink could be approached to be another funding partner. Again, further discussion with TransLink would be required to determine how the funding and revenues would be divided.

## **7.5 Subsidize the Jack Bell FLEX-Vanpooling Program**

### *Description*

A fourth option would be to subsidize the Jack Bell Vanpooling program (which operates only on weekdays). Currently, the organization is considering piloting a new program where one-third of the seats in each vehicle would be reserved for "on-demand" passengers who can book a seat the night before their trip through an online registration and payment system. These riders would be picked up and dropped off at central Vanpool locations (ideally close to local transit stops/stations). Regular users can also "release" their guaranteed seat in their regular vanpool and travel in another vehicle (e.g., if they have to stay late at work). This would offer more flexibility than the current service, which requires users to commit to a Vanpool for at least a year, and thereby attract more users.

The District could help the Jack Bell Foundation establish a pilot program in Squamish and provide funds to finance additional fleet vehicles (e.g., 10 vans and 10 cars), raise the profile of the new service (through various cost-effective marketing strategies and campaigns), and help the organization develop a new online vehicle reservation system. A Guaranteed/Emergency Ride Home similar to the one described above could also be offered to allow more flexibility (the Jack Bell Foundation currently only provides a Guaranteed Ride home for trips within Metro Vancouver), and regular users could be provided with free transfers onto the local transit system (although agreements would have to be made between BC Transit and TransLink, and Jack Bell). In addition, bike racks for the vehicles could be purchased and installed at the cost of the regular group.

Such a program could be used as a means of building ridership for a commuter transit system in future years. Such an approach has been taken by BC Transit as a means of building transit ridership for the Duncan-Victoria Corridor.

### Costs and Ridership

The annual subsidy the District would provide to the Jack Bell Vanpooling program would mainly cover the leasing of and insuring 20 additional vehicles (each van would be approximately \$15,500/year and each car would be \$11,000/year) and marketing costs. A proposed three-year subsidy program is presented in Table 14. Additional funding after Year 3 could also be provided, depending on the success of the program, the needs of the Jack Bell Foundation, and whether or not a new express commuter bus service is established.

**Table 14 – Costs and Ridership for Subsidizing the Jack Bell FLEX-Vanpooling Program**

	Year 1	Year 2	Year 3
Online Vehicle Registration System Development	\$10,000	N/A	N/A
Vehicle Financing	\$262,000	\$262,000	\$262,000
Marketing	\$80,000	\$80,000	\$80,000
Annual Total Cost	\$342,000	\$342,000	\$342,000
<b>3-Year Total Cost</b>	<b>\$1,037,000</b>		
<b>Annual Passenger Trips</b>	<b>28,000</b>	<b>27,500</b>	<b>27,500</b>
<b>Annual SOV Trips Reduced (in comparison to base year)</b>	<b>22,500</b>	<b>22,500</b>	<b>22,500</b>
<b>Cumulative Passenger Trips Served in 3 Years</b>	<b>83,000</b>		
<b>Cumulative Total SOV Trips Reduced in 3 Years</b>	<b>68,000</b>		
<b>Cost per Passenger Trip</b>	<b>\$12.45</b>		
<b>Cost per SOV Trip Reduced</b>	<b>\$15.20</b>		

\*Values may not sum to total due to rounding and are in \$2009.

An additional \$10,000 would also be required for the development of the online reservation system. Therefore, the total subsidies for the first three years of the program would be \$1,037,000.

Assuming that most or all of the new seats get filled every weekday, the increase in the annual ridership of this program would be up to 27,500 and the number of one-way single occupancy vehicle (SOV) trips reduced per year would be up to 22,500 (this is calculated by excluding the new drivers of the FLEX-Vanpooling program). It is important to note that these two numbers illustrate two different things. The first is an indication of how many people are provided with a new means of transportation, and the second is an indication of the level of congestion and pollution (as well as other negative transportation impacts) that is reduced.

### Funding Options

The funding for this program would originate primarily from the District of Squamish's municipal budget. However, BC Transit could also be pursued as a funding partner to help cover the some of the capital costs. Potential private sponsorships from employers could also be pursued to help offset some of the costs, as the Vanpooling program helps reduce the number of parking spaces employers have to provide for their employees.

## 7.6 Subsidize Employer Carpools

### Description

As an alternative to subsidizing the Jack Bell Vanpooling program, more efforts could be spent on encouraging employer-funded carpools. A program could be established by the District of Squamish to educate employers and employees on the benefits of carpooling (e.g., less financial resources spent on providing parking to employees, lower vehicle operating costs for employees, etc.). Employers could also

be encouraged to establish a Guaranteed Ride Home program, where they would reimburse the participants of the program if an emergency taxi ride home is required.

To provide a stronger financial incentive for employers to establish employer carpools, a grant would be established to help some employers offset some of the cost of purchasing their fleet vehicles. Each employer would be eligible for a one-time grant of a certain amount (e.g., \$20,000) to purchase a fleet vehicle and the grant program could be phased out after several years (e.g., 3-5 years). To receive a grant, employers would have to go through an application process and show how they plan to continue funding the vanpooling program in the future. The evaluation process would likely be on a first-come, first-serve basis.



Figure 12 - A Carpool Traveling in a High-Occupancy Vehicle Lane

*Costs and Ridership*

Each year, a total of \$100,000 would be allocated to eligible employers who apply for the grant. This would allow approximately 5 employers to receive financial assistance each year (given that the locations of employment are relatively disbursed, it is reasonable to assume that it would be difficult to find more than 5 employers each year). In addition to providing the grants, the District of Squamish would also have to designate a city employee to administer the grant program as part of their work. Other administrative costs would also have to be accounted for. These costs are shown in more detail in Table 15.

**Table 15 – Costs and Ridership for Subsidizing Employer Carpools**

	Year 1	Year 2	Year 3
Salary and Benefits	\$13,000	\$13,000	\$13,000
Other administrative costs	\$6,000	\$6,000	\$6,000
Grant for Employers	\$100,000	\$100,000	\$100,000
Annual Total Cost	\$119,000	\$119,000	\$119,000
<b>3-Year Total Cost</b>	<b>\$357,000</b>		
<b>Annual Passenger Trips</b>	<b>9,000</b>	<b>18,000</b>	<b>27,000</b>
<b>Annual SOV Trips Reduced (in comparison to base year)</b>	<b>7,000</b>	<b>14,000</b>	<b>20,000</b>
<b>Cumulative Passenger Trips Served in 3 Years</b>	<b>54,000</b>		
<b>Cumulative SOV Trips Reduced in 3 Years</b>	<b>41,000</b>		
<b>Cost per Passenger Trip</b>	<b>\$6.60</b>		
<b>Cost per SOV Trip Reduced</b>	<b>\$8.80</b>		

\*Values may not sum to total due to rounding and are in \$2009.

The total operating cost for the first three years will be \$357,000.

Assuming that each year 5 new employers receive a grant, and 4 employees (including 1 driver) per company participate in the carpooling program 90% of the time, approximately 9,000 one-way passenger trips would be served using this grant program in the first year. This would increase to 18,000 one-way passenger trips being served in Year 2 (9,000 new carpool trips, plus 9,000 existing carpool trips) and 27,000 one-way passenger trips in Year 3 (for a cumulative total of 54,000 passenger trips). This translates to a reduction of approximately 7,000 one-way SOV trips in Year 1, 14,000 in Year 2, and 20,000 in Year 3 (for a cumulative total of 41,000 trips).

As this is a grant program, there are no fees that would be charged. Therefore, there are no costs that would be recovered from the operation of the program.

## Funding Options

The funding for this program would come primarily from the District's municipal budget. However, there may also be grants from senior levels of government that could be used to fund the program. Examples include the Green Municipal Fund for Sustainable Transportation Projects and the Community Works Fund, which is supported by the New Deal for Cities and Communities.

### 7.7 Evaluation of Service Options

The total costs and estimated new ridership of the options presented in Subsection 7.2 are shown in Table 16. The first two options (a new express commuter service and a subsidy program to reduce the fares of an existing private bus service) have been packaged together, as they seem to be compatible and would be effective to implement together.

**Table 16 - Total 3-Year Cost and Ridership of Service Options**

	Capital Cost	Total Three-Year Net Operating Cost	Cumulative New Passenger Trips Served in 3 Years (in comparison to base case)	Average Net Cost per New Passenger Trip in 3-Year Period	Reduction of SOV trips	Average Net Cost per SOV Trip Reduced in 3-Year Period
1) New Express Commuter Bus and Subsidize Existing Private Bus Service to Reduce Fares	\$100,000	\$1,763,000	127,000	\$13.90	127,000	\$13.90
2) Subsidize Existing Private Bus Service to Enhance Service and Reduce Fares	\$100,000	\$416,000	72,000	\$5.80	72,000	\$5.80
3) Subsidize Jack Bell FLEX-Vanpooling Program	N/A	\$1,027,000	83,000	\$12.45	68,000	\$15.20
4) Subsidize Employer Carpools	N/A	\$357,000	54,000	\$6.60	41,000	\$8.80

\*Values are in \$2009.

An evaluation of the four options, using the criteria established in Subsection 7.1 is also shown in Table 17.



**Table 17 - Evaluation of the Transportation Options for Squamish-Vancouver Commuter Service**

Evaluation Criterion	1) New Express Commuter Bus and Subsidize Existing Commercial Bus Service to Reduce Fares	2) Subsidize Existing Commercial Bus Service to Enhance Service & Reduce Fares	3) Subsidize Jack Bell FLEX-Vanpooling Program	4) Subsidize Employer Carpools
Affordable to customers				
Offers convenient schedule (accommodates employees and visitors' schedules)				
Is flexible (does not require users to be committed to the system or to adhere to a strict travel schedule)				
Travel time is minimized				
Offers conveniently located pick-up and drop-off locations				
Provides a convenient means for transporting bicycles.				
Is universally accessible				
Is reliable				
Offers convenient connections to local transit				N/A
Offers free transfers to local transit systems				N/A
Provides easy access to service schedule				N/A
Is cost-effective				
Is relatively easy to establish				
Does not directly compete with existing services				
Able to attract significant ridership				
Reduces the environmental impacts of transportation				
Supports the establishment of a multi-modal hub in downtown				
Reduces traffic congestion				

**Best Suited to meet Criteria**    
 **Adequately Suited to meet Criteria**    
 **Poorly Suited to meet Criteria**

Given the evaluation results presented in Table 17, option #1 (establishing a new commuter bus service and reducing the fares of an existing private transportation operator) appear to be the most effective option. Together, these two programs would offer the following advantages:

- More travel times and flexibility for users (as users are not required to be committed to the service and they are not restricted to the same travel schedule each day).
- Connections to local transit systems.
- A significant reduction of negative environmental impacts from the transportation sector as well as traffic congestion, as they would remove a considerable number of vehicles from Highway 99 along the Squamish-Vancouver Corridor.
- Easy-to-understand and easy-to-access bus schedules. The bus schedules, which would remain consistent, would be posted up at the bus stops. The Jack Bell program, on the other hand, requires the service to be marketed very well so that residents and visitors are aware and understand the program.

In addition, the new commuter service would:

- Provide free transfers to the local transit systems;
- Provide bike racks;
- Always be equipped with wheelchair lifts so that users with all levels of mobility can use the system;
- Ensure buses are more likely to arrive on-time; and
- Improve service reliability, as an off-board fare collection process would be utilized.

Compared to options #2 and 4, the cost per passenger trip for option #1 may be higher. However, as ridership increases over time, this cost may be reduced.

With these relative advantages of option #1 in mind, the following section outlines the key steps to implementing a new commuter bus service and a subsidy program to reduce the fares of an existing private bus service.

## 8.0 Recommendations

To implement a new commuter service and a program to reduce the fares of an existing private bus service, the following steps would need to be taken.

1. Approve the plan to implement a new express commuter service and a subsidy program to reduce the fares of an existing private bus service such as Greyhound.
2. Develop an agreement between the District of Squamish and BC Transit that allows the new commuter service to be established. An agreement with the municipalities of Vancouver, West Vancouver, North and Vancouver, and TransLink would also be required.
3. At the same time, approach BC Transit and TransLink to be potential funding partners for the new commuter service, and the municipalities of West Vancouver and North Vancouver to be potential funding partners for the subsidy program. If these parties are unable to contribute, approach businesses for sponsorships.
4. Develop agreements between all contributing parties, specifying how the costs and revenues (the latter would only apply to the new commuter service) would be divided up. At the same time, determine how the fares of the new commuter service would be made transferrable to and

integrated with the fares of the TransLink transit system and the Squamish Transit system. The funding agreements should span the first three years of the programs, and be renewed every three years thereafter, depending on the success of the programs.

5. Develop an agreement with an existing private bus operator (e.g., Greyhound) to provide an annual subsidy to reduce their fares.
6. Review and confirm service plan (operating schedule, stop locations, etc.) for the new commuter bus service and the existing Greyhound service. When deciding the bus stop locations, consideration should be given to how the services can support a multi-modal hub in Downtown Squamish and be well connected to local transit systems.
7. Confirm the estimated value of the service contracts for the operation and maintenance of the transit vehicles for the new commuter service.
8. Develop a more detailed cost estimate of bus stop capital requirements (e.g., parking facilities and pedestrian amenities such shelters, seating, transit ticket machines, etc.).
9. Develop a branding scheme for the new service and a more detailed marketing budget.
10. Finalize fare schedule. A suggested fare schedule is shown in Table 18. It is structured in a manner similar to the Sea to Sky Transit system, ensuring consistency in the services provided to the District of Squamish. As indicated in the table, the cost to use this service is fairly affordable when compared to the West Coast Express, where 28-day passes are \$161 to \$269 per month, depending on how far a person travels.

**Table 18 – Suggested Fare Schedule for a New Commuter Service**

	Cash Fare	10 Tickets	Monthly Pass
Adult	\$6.00	\$54.00	\$160.00
Seniors	\$5.00	N/A	N/A
Students	\$5.00	N/A	N/A
Children under 5	Free	N/A	N/A

11. Create opportunities for transit advertising (e.g., poster boards at transit stops, on the interior and exterior of buses, etc.).
12. Develop a three-year budget for both programs, with updated operating and capital cost estimates.
13. Solicit proposals to operate and maintain the transit vehicles of the new commuter bus service, and formulate a contract with the selected proponent.
14. Develop a monitoring program that tracks customer satisfaction and ridership of both programs.
15. Implement the programs and monitoring program.

If BC Transit, TransLink, and/or the municipalities of North Vancouver and West Vancouver are unable to contribute to the cost of these services, the District may want to seek sponsorships from employers and businesses. They are also a beneficiary of the services (e.g., they would be able to provide less parking for their employees and customers, they would have a wider reach for potential employees, and the new transit service may be able to attract more visitors to their local areas) and therefore may be willing to sponsor them. In exchange, they could be given special advertising space on the new commuter bus system and have a bus stop named after them.

## 9.0 Conclusion

As this report has shown, there is an existing and growing demand for a new supplementary/enhanced commuter service between the District of Squamish and Metro Vancouver. However, although alternative forms of transportation do currently serve this corridor, there are several significant barriers to using them. These include cost, lack of reliability, and lack of flexibility. Therefore, a new express commuter service such as the Sea to Sky system would likely be well supported.

Not only would such a service reduce traffic congestion along Highway 99, but it would also reduce the negative environmental impacts of vehicular transportation and provide Squamish residents an affordable means of accessing employment and educational opportunities, and medical facilities. Compared to the other available options considered in this report, such a service would also be reliable and flexible (by allowing different levels of user commitment), and offer connections and potentially free transfers onto the local Squamish and TransLink systems. It would also be able to accommodate users with mobility impairments, as well as cyclists who would like to take their bicycles onto the bus.

It is recommended that initially the new express commuter service only operate during peak hours. This would maximize the cost-effectiveness of the system and minimize the degree to which it overlaps with other services. As the experience of the Sea to Sky transit service between Squamish and Whistler has shown, however, the ridership for such a service will likely increase with time. As this occurs, additional service may be added (e.g., mid-day service and weekend service), and a larger diversity of trips may be accommodated. If marketed well, more tourists and visitors may also be attracted to the service.

To further encourage commuters to use public transportation, this report has also recommended providing a discount to users of an existing commercial transportation system such as Greyhound. By offering discounts to Greyhound's 20-ticket booklets, the new commuter service would complement rather than compete with the private company. As a result, Greyhound would be able to continue operating cost-effectively between the two areas, users would benefit from more affordable fares, and the District would be able to increase the mobility of their residents. This option, therefore, would bring benefits to all involved parties.

Potential funding partners include BC Transit and TransLink, through cost-sharing agreements such as that established for the Sea to Sky service. If, however, these parties are unable to contribute, to ensure the system can be implemented in the near future and be sustained in the long term, the District could pursue sponsorships from businesses and/or perhaps allocate existing/new municipal revenue to the service.

The next steps to further the implementation of the new commuter service include having discussions with BC Transit and TransLink, and with the municipalities of Vancouver, West Vancouver and North Vancouver regarding funding, fare integration, use of bus stops. Once these issues have been resolved, a transit service agreement would have to be developed between the District of Squamish and BC Transit that allows this service to be established. To confirm the funding commitments and the permitted use of the bus stops, agreements with the municipalities of Vancouver, West Vancouver, and North Vancouver, and TransLink would also be required.

## Appendix A – Survey Questionnaire

**Survey for Potential Two-Way BC Transit/ District of Squamish Express Bus Services  
between Squamish and Vancouver**

New peak period (5:30 am to 8:30 am and 3:30 pm to 6:30 pm) two-way commuter bus services are being considered by the District of Squamish working with BC Transit, starting some time in 2010 to supplement the existing Greyhound Bus service which operates between North Squamish (40466 Government Road) and downtown Squamish (on Pemberton near Shoppers Drug Mart) and Vancouver, and takes 1 hour, 40 minutes. Greyhound bus trips in these weekday peak periods are currently at 6:30 am in the morning (depart Squamish) and 5:00 pm in the evening (return trip to Squamish). These new commuter service trips would have the same starting locations and stop at Park Royal in West Vancouver and Hotel Vancouver in downtown, and could potentially have additional stops at Lions Bay, Horseshoe Bay-BC Ferries, Lonsdale Quay, and the VIA Rail station or other. This service would be subject to obtaining the required funding.

Please answer the following questions to assist us in planning and developing this service.

1. Do you travel to Vancouver from Squamish on a regular basis during the weekday morning commute period (between 5:30 to 9:00 am) and return at night (4:30 to 7:00 pm)?  Yes  No
2. How often do you make this trip to Vancouver from Squamish?  
 5 days a week  3-4 days a week  1-2 days a week  Infrequently  Never
3. What mode do you usually use to make this Squamish Vancouver trip?  
 Car alone - driver  Car passenger  Transit  Carpool - more than 2 people
4. Where do you usually begin your trip in Squamish in the morning? (Please name the closest intersection.)  


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5. If you travel to Vancouver, where do you usually end your trip? (Please name closest intersection or destination.)  


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6. Do you use the *existing* Greyhound bus service to travel between Squamish and Vancouver?  Yes  No
7. If yes to Question 6, how often do you use this Greyhound bus service for your trip to Vancouver?  
 5 days a week  3-4 days a week  1-2 days a week  Infrequently
8. If additional two trips were offered between Squamish and Vancouver by District of Squamish/BC Transit, other than the Greyhound service, how often would you use these trips for the Squamish to Vancouver commute?  
 5 days a week  3-4 days a week  1-2 days a week  Infrequently  Never
8. What major stops would be very important for these additional Squamish to Vancouver trips to make?

Lions Bay community	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Horseshoe Bay - BC Ferries	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Lonsdale Quay-with transfer to SeaBus	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High

- |   |                              |                                 |                               |
|---|------------------------------|---------------------------------|-------------------------------|
| Downtown Vancouver at Waterfront Station                  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Downtown Vancouver at Vancouver Hotel (Burrard & Georgia) | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| VIA Train Station   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Other potential stations - please list                    |                              |                                 |                               |
| _____   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| _____   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |

9. The existing Greyhound Bus leaves Squamish at 6:30 am in the AM peak period (5:50 to 8:30 am) and returns to Squamish at 5:00 pm in the PM peak period (3:30 to 6:30 pm). What additional trip times in the morning and afternoon peak periods are most important to you?

AM peak period. Rank these trip times from 1<sup>st</sup> to 4<sup>th</sup>. 5:30 \_\_\_\_\_ 6:00 \_\_\_\_\_ 7:00 \_\_\_\_\_ 7:30 \_\_\_\_\_  
 PM peak period. Rank these trip times from 1<sup>st</sup> to 5<sup>th</sup>. 3:30 \_\_\_\_\_ 4:00 \_\_\_\_\_ 4:30 \_\_\_\_\_ 5:30 \_\_\_\_\_ 6:00 \_\_\_\_\_

10. The existing cost of the Greyhound Squamish Vancouver commuter service is **\$10.60** for one trip (buying 10 ticket booklet) or **\$6.50** (buying 20 ticket) booklet. What would be an acceptable fare to pay for a Squamish-Vancouver commuter service?

What is the value to you of a one-way trip using the Squamish-Vancouver commuter service? Please choose one?  \$10.60  \$9.00  \$8.00  \$7.00  \$6.50  \$5.00  \$4.00

11. For you to use this Squamish-Vancouver commuter bus service described above, what is important to you? Please rank each area which is applicable to you as high, medium or low.

- |  |                              |                                 |                               |
|--|------------------------------|---------------------------------|-------------------------------|
| Parking at the central pick-up/drop-off point in my community  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| A place at the pick-up/drop-off point where I could be dropped off   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Reliability of service (buses would leave on-time more than 97% of the time)   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Free use of commuter service with holders of Squamish monthly transit passes   | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Use new buses  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Downtown Squamish--off street exchange with heated shelters at which local Squamish and Squamish Vancouver commuter services meet- | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Connecting local transit services  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Comfortable highway coach bus  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Mid-day service  | <input type="checkbox"/> Low | <input type="checkbox"/> Medium | <input type="checkbox"/> High |
| Other desired features – please list comments in regard to above or other desired service features                                 |                              |                                 |                               |

12. Please indicate your age group.  
 16-17  18-24  25-34  35-44  45-54  55-64  65-74  75+

13. Please provide any other comments.

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**Complete this survey and return to one of the locations noted below by May 6, 2009.**

**Mail or fax completed form to:**

Attention: Bill Lambert, Senior Transit Planner  
AECOM Canada Ltd.  
275-3001 Wayburne Drive, Burnaby, BC V5G 4W3  
Fax: 604-438-5587

***Drop off completed form to Greyhound driver.***

*If you are on an existing Squamish-Vancouver commuter service, the driver will forward your completed survey to AECOM.*

**Drop off completed form at any one of these locations:**

District of Squamish Municipal Hall  
Attention: Ralph Hughes, Director of Financial Services

**Complete this survey on-line at:**

<http://66.119.176.226/survey/>

*Thank you for your input!*